

WHAT IS CLAIMED IS:

1. A source driver for supplying gray scale voltages depending on data signals, to pixels required to be AC-driven, comprising:

a resistance-type voltage division circuit for generating gray scale voltages,

wherein positive-side (high level) voltage resistance division ratios and negative-side (low level) voltage resistance division ratios of the resistance-type voltage division circuit are set so as to be asymmetrical with one another depending on level shift characteristics.

2. A source driver for supplying gray scale voltages depending on data signals, to pixels required to be AC-driven, comprising:

a resistance-type voltage division circuit for generating gray scale voltages,

wherein resistance division ratios of the resistance-type voltage division circuit are optimized depending on gray scale display characteristics.

3. A source line drive circuit for supplying gray scale voltages depending on data signals, to pixels required to be AC-driven, comprising:

the source driver of claim 1; and

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a gray scale reference voltage generation circuit,
wherein the source driver is provided with a plurality
of input terminals, to which a plurality of input terminals are
supplied gray scale reference voltages each having a different
voltage level, and positive-side and negative-side gray scale
voltages are generated based on the plurality of gray scale
reference voltages.

4. A source line drive circuit for supplying gray scale
voltages depending on data signals, to pixels required to be
AC-driven, comprising:

the source driver of claim 2; and

a gray scale reference voltage generation circuit,
wherein the source driver is provided with a plurality
of input terminals, to which a plurality of input terminals are
supplied gray scale reference voltages each having a different
voltage level, and positive-side and negative-side gray scale
voltages are generated based on the plurality of gray scale
reference voltages.

5. A source line drive circuit for supplying gray scale
voltages depending on data signals, to pixels required to be
AC-driven, comprising:

the source driver of claim 1,

wherein the source driver is provided with two input

terminals, to one of which input terminals is supplied a positive-side highest-level reference voltage and to the other of which input terminals is supplied a negative-side lowest-level reference voltage, and positive-side and negative-side gray scale voltages are generated based on the highest-level reference voltage and the lowest-level reference voltage.

6. A source line drive circuit for supplying gray scale voltages depending on data signals, to pixels required to be AC-driven, comprising:

the source driver of claim 2,

wherein the source driver is provided with two input terminals, to one of which input terminals is supplied a positive-side highest-level reference voltage and to the other of which input terminals is supplied a negative-side lowest-level reference voltage, and positive-side and negative-side gray scale voltages are generated based on the highest-level reference voltage and the lowest-level reference voltage.

7. An active-matrix liquid crystal display device comprising:

a plurality of pixels disposed in matrix;

a plurality of data signal lines disposed corresponding

to columns of the pixels;

a plurality of scanning signal lines disposed corresponding to rows of the pixels;

switching devices at the individual pixels; and

the source line drive circuit of claim 3 for driving the data signal lines.

8. An active-matrix liquid crystal display device comprising:

a plurality of pixels disposed in matrix;

a plurality of data signal lines disposed corresponding to columns of the pixels;

a plurality of scanning signal lines disposed corresponding to rows of the pixels;

switching devices at the individual pixels; and

the source line drive circuit of claim 4 for driving the data signal lines.

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